

## CLAIMS:

1. A device for subfield coding a large-screen display, the device comprising means for generating a digital value for a picture element of the display and means for determining a first number and a second number of subfields of a predetermined total number of subfields from the digital value, for which determined subfields the picture element emits radiation

5 characterized in that the device comprises

- means for determining the first number of subfields from the digital value, the first number of subfields having a fixed duration and a different on-period in which the picture element emits radiation, and

10 - means for determining the second number of subfields from the digital value, the second number of subfields having a fixed duration and a fixed on-period during which the picture element emits radiation.

2. A device for subfield coding as claimed in claim 1, characterized in that the

15 means for determining the first number are arranged to determine the first number from a sequence of a predetermined number of least significant bits of the digital value.

3. A device for subfield coding as claimed in claim 2, characterized in that the subfield coding device comprises means for generating a subfield sequence having a number 20 of subfields which is equal to the determined number of least significant bits, and the duration of the on-period of a subfield selected from the subfield sequence is a function of two to the power of the rank of the selected subfield in the subfield sequence.

4. A device for subfield coding as claimed in claim 3, characterized in that the 25 subfield coding device comprises means for generating an output-enable signal depending on the order of a subfield in the subfield sequence and the value of a bit in the sequence of least significant bits, which order of the bit in the sequence corresponds to the order of the subfield.

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5           A device for subfield coding as claimed in claim 4, characterized in that the  
means for generating the output-enable signal comprises a look-up table and a period counter  
for counting the length of the on-period.

5   6.       A device for subfield coding as claimed in claim 1, characterized in that the  
means for determining the second number are arranged to determine the second number  
proportional to a value formed by the remainder of most significant bits of the digital value.

10   7.       A display device comprising a display screen having a plurality of controllable  
light sources arranged in a matrix, the display device comprising a device for subfield coding  
as claimed in claim 1.

15   8.       A method of subfield coding a large-screen display, the method comprising  
the steps of  
generating a digital value for a picture element of the display and  
determining a first number and a second number of subfields of a predetermined total number  
of subfields from the digital value, for which determined subfields the picture element emits  
radiation  
characterized in that the step of determining subfields comprises  
20   -       a substep of determining the first number of subfields from the digital value,  
the first number of subfields having a fixed duration and a different on-period in which the  
picture element emits radiation, and  
-       a substep of determining the second number of subfields from the digital  
value, the second number of subfields having a fixed duration and a fixed on-period during  
25   which the picture element emits radiation.

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